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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 11

Application Number: 09/443,262
Filing Date: November 22, 1999
Appellant(s): KALLIOKULJU ET AL.

Henry I. Steckler
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/17/2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1 and 5-9 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a list of the prior art of record relied upon in the rejection of claims under appeal.

5,943,333	Whinnett et al	August 24, 1999
5,561,844	Jayapalan et al	October 1, 1996
6,122,293	Frodigh et al	September 19, 2000
6,052,385	Kanerva et al	April 18,2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844).

Regarding claim 1, Whinnett teaches a method for a mobile station for performing a handover (see fig.1 and column 4 lines 26-36 for "the terminal 100 will seek to handoff to the second network 50") from a first network connection (see fig.1 a wireless communication between a mobile station 100 with a first network (box 40 or network 1)) to a second network connection (also see fig.1 a wireless communication between a mobile station 100 with a second network (box 50 or network 2)).

Whinnett does not specifically disclose a method for a mobile station for performing a handover in a mobile telecommunication system providing for non-real time telecommunication connections over a radio interface between mobile stations and the fixed parts of the mobile telecommunication system, comprising in the order recited the steps of: suspending at least one active non-real time telecommunication

connection between a mobile station and the fixed parts of the mobile telecommunication system, and resuming the suspended non-real time telecommunication connection.

Jayapalan teaches a method for a mobile station for performing a handover (see abstract, "handoff") in a mobile telecommunication system providing for non-real time telecommunication connections (see column 2 lines 24-25 "fax transmission" for non-real time telecommunication connections) over a radio interface between mobile stations and the fixed parts of the mobile telecommunication system (see fig.2 connection between box 14 and radio interface 10 and see column 2 lines 62-67), comprising in the order recited the steps of: suspending at least one active non-real time (column 2 lines 24-25 see "fax transmission" for non-real time telecommunication connections and see column 5 lines 35-38) telecommunication connection between a mobile station and the fixed parts of the mobile telecommunication system (see column 3 lines 30-35, the MS (200, 201, or 202) is the mobile station and the "BTS 100" is the fixed parts of the mobile telecommunication system), performing a handover (see column 5 lines 35-38), and resuming the suspended non-real time telecommunication connection (also see column 5 lines 46-50 and see column 6 lines 42-44). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Jayapalan into the system of Whinnett in order to reduce data loss during cellular handoff (see Jayapalan, abstract).

Regarding claim 9, the combination of Jayapalan and Whinnett further teaches a mobile station for communicating with the fixed parts of a mobile telecommunication

system over network connections (see Jayapalan column 3 lines 52-55), comprising means for executing the method according to claim 1 in order to perform a handover from a first network connection to a second network connection (see Whinnett fig.1 a wireless communication between a mobile station 100 with a first network (box 40 or network 1) and a second network (box 50 or network 2), and see column 4 lines 26-36 for "the terminal 100 will seek to handoff to the second network 50").

B. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and further in view of the Applicant's admitted prior art.

Regarding claim 5, the combination of Whinnett and Jayapalan teaches the non-real time telecommunication connections (Jayapalan, column 2 lines 24-25, see "fax transmission" for non-real time telecommunication connections).

The combination of Whinnett and Jayapalan does not specifically disclose telecommunication connections are arranged according to a certain structure of protocol stacks in a mobile station, a radio access network, a serving support node of a packet-switched data transfer network and a gateway support node of a packet-switched data transfer network, and the method comprises the steps of: communicating between a number of first peer entities between the mobile station and the radio access network, and the first peer entities are composed of a physical layer, a Media Access Control layer and a Radio Link Control layer, and a Network Service layer and a protocol layer for communication between the radio access network and the packet-switched data

transfer network, and a Subnetwork Dependent Control Protocol Layer which in the mobile station is immediately on top of the Radio Link Control layer and in the serving support node of a packet-switched data transfer network is immediately on top of the protocol layer for communication between the radio access network and the packet-switched data transfer network.

The Applicant's admitted prior art teaches telecommunication connections are arranged according to a certain structure of protocol stacks in a mobile station (see fig.1 box MS), a radio access network (see Back ground of the invention page 2 lines 8-9 or Radio network controllers), a serving support node of a packet-switched data transfer network and a gateway support node of a packet-switched data transfer network (see Back ground of the invention page 2 lines 8-9), and the method comprises the steps of: communicating between a number of first peer entities between the mobile station and the radio access network (see Back ground of the invention page 1 lines 21-23) , and the first peer entities are composed of a physical layer (see Back ground of the invention page 1 lines 16-21), a Media Access Control layer (see fig.1 box 102) and a Radio Link Control layer (see fig.1 box 103), and a Network Service layer (see fig.1 box 105) and a protocol layer (see Back ground of the invention page 1 line 21-23) for communication between the radio access network and the packet-switched data transfer network, and a Subnetwork Dependent Control Protocol Layer (see fig.1 box 108) which in the mobile station is immediately on top of the Radio Link Control layer (see fig.1 box 103) and in the serving support node of a packet-switched data transfer network is immediately on top of the protocol layer for communication between the radio

access network and the packet-switched data transfer network (see Back ground of the invention page 1 line 15-16). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of the admitted prior art into the system of Whinnett and Jayapalan in order to ensure a sufficient data transmission performance.

The combination of Whinnett, Jayapalan and the admitted prior art does not specifically disclose the communicating between a number of second or third peer entities between the radio access network and the serving support node of a packet-switched data transfer network. However, such as number of peer entities would have been obvious since the particular number of peer entities could have been determined by the inventors' choice. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to select such number of peer entities so that signals could be transmitted to many entities at the same time.

C. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) and Jayapalan (US 5,561,844) and further in view of the Applicant's admitted prior art and Frodigh et al (US 6,122,293).

Regarding claim 6, the combination of Whinnett, Javapalan and the Applicant's admitted prior art teaches the Radio Link Control layer (see Applicant's Background of the invention page 1, lines 18-21). The combination of the admitted prior art, Whinnett and Javapalan does not specifically disclose the steps of performing error detection and error-related retransmission as well as flow control between the mobile station and the

radio access network. Frodigh teaches the steps of performing error detection and error-related retransmission as well as flow control between the mobile station and the radio access network (see column 4 line 56-59). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the teaching of Frodigh into the system of the Applicant's admitted prior art, Whinnett and Javapalan in order to eliminate error during data transmission.

D. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and further in view of Frodigh et al (US 6,122,293).

Regarding claim 7, the combination of Whinnett and Jayapalan teaches a first network connection and the second network connection (see Whinnett fig.1 and column 4 lines 26-36) are packet-switched connections (see Applicant's Background of the invention page 2 lines 6-9). The combination of Whinnett and Jayapalan does not specifically disclose the connections for transmitting error critical data. Frodigh teaches connections for transmitting error critical data (see column 8 line 56-60). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Frodigh into the system of Whinnett and Jayapalan in order to eliminate error during data transmission.

E. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and further in view of Kanerva et al (US 6,052,385).

Regarding claim 8, the combination of Whinnett and Jayapalan teaches the first network connection and the second network connection (see Whinnett, fig.1 a wireless communication between a mobile station 100 with a first network (box 40 or network 1)) to a second network connection (also see fig.1 a wireless communication between a mobile station 100 with a second network (box 50 or network 2)). The combination of Whinnett and Jayapalan does not specifically disclose the non-transparent circuit-switched connections. Kanerva teaches the non-transparent circuit-switched connections (see abstract and column 11 lines 10-15). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Kanerva into the system of the combination of Whinnett and Jayapalan in order to reduce interference and power consumption (see Kanerva, abstract).

(11) Response to Argument

On page 5 of Appellant's argument, Appellant argues that Jayapalan fails to disclose non-real time communications.

In response, Jayapalan does indeed teach non-real time communications since Jayapalan teaches fax transmission. In Jayapalan, the fax data is typed, written or printed on paper and later inserted into a fax machine and stored (see Jayapalan,

column 6 line 3 or column 8 lines 4-10) and transmitted on later time by wireless transmission.

Therefore, Jayapalan teaches **non-real time** communications.

On pages 6 and 7 of Appellant's argument, Appellant argues that Jayapalan does not disclose the concept of suspending transmissions for the duration of a handover and suspending transmissions in a connection.

In response, Jayapalan does indeed teach the concept of suspending transmissions for the duration of a handover (see Jayapalan, column 5 lines 35-38 which clearly states "During the period of **handoff** the terminal adapter (13 or 106) would buffer data for later transmission. Upon completion of handoff the terminal adapter (13 or 106) would **resume** normal transmission of data"). In Jayapalan, "During the period of handoff" means the duration of a handover, and "buffer data for later transmission" means **suspending** the transmission data for later transmission, and **handoff** means **handover**.

On pages 6 and 7 of Appellant's argument, Appellant argues that in Jayapalan, lines 35-45 of column 3, Jayapalan teaches conjuring filler bits that it feeds to the mobile telephone 10 instead of actual fax data *and* the mobile station 10 continue transmitting these filler bits over the network connection exactly as if the contained fax data."

The Examiner, however, disagrees. Jayapalan does indeed teach "*upon receipt of a handoff complete message the fax adapter (13a) begins transmitting buffered information through the MS (200, 201, or 202) on a first-in-first out basis*" (see

Jayapalan, column 3 lines 52-55). In this case, the "buffered information" is actual fax data. Therefore, Jayapalan teaches transmitting actual fax data.

In addition, Appellant's argument concerns the **filler bits** are transmitted over the network connection. However, Applicant's claimed invention does not require that the **filler bits** are not be transmitted.

Therefore, the teaching of Jayapalan still reads on Applicant's claimed invention.

On pages 7 and 8 of Appellant's argument, Appellant further argues that the applicant's invention of claim 1 explicitly recites an active non-real time telecommunication connection between a mobile station and the fixed parts of the mobile telecommunication system to be suspended and this is definitely something that does not take place in Jayapalan.

The Examiner, however, disagrees. Jayapalan does indeed teach an active non-real time (see Examiner's answer above regarding page 5 of Appellant's argument) telecommunication connection between a mobile station and the fixed parts of the mobile telecommunication system (see column 3 lines 30-35, the **MS** (200, 201, or 202) is the mobile station and the **BTS 100** is the fixed parts of the mobile telecommunication system) to be suspended (see Jayapalan, column 5 lines 35-38 which clearly states "During the period of handoff the terminal adapter (13 or 106) would **buffer data** for later transmission. Upon completion of handoff the terminal adapter (13 or 106) would **resume** normal transmission of data"). In Jayapalan, "buffer data for later transmission" means **suspending** the transmission data for later transmission.

On pages 8 and 9 of Appellant's argument, Appellant further argues that there is still another subtle difference between Jayapalan and Applicant's invention such as a fax transmission consist of lines, dots, dots per inch, lines length, dots per line, bits per line, bits per second, time to transmit, frame length, time scale and the filler bits. Therefore, Jayapalan does not unambiguously teach any kind of modifications to the transmissions before a handover is reality.

In response to Appellant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which Appellant relies (i.e., fax transmission consist of lines, dots, dots per inch, lines length, dots per line, bits per line, bits per second, time to transmit, frame length, time scale and the filler bits) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 9 of Appellant's argument, Appellant further argues that claim 1 recites "non-real time" and "in order recited", i.e., suspension is done before handover and these limitations define over the Whinnett and Jayapalan even when taken in combination.

The Examiner, however, disagrees. In Jayapalan, column 3 lines 60-64 which clearly states "the adapter (13a) encounters an EOL and begins buffering and transmitting filter bits, and the timer (13c) times out **before** handoff completion". In this case, buffering means **suspending** the transmission data for later transmission and

before handoff completion means the handoff is not over yet and can be considered as before handover.

Therefore, Jayapalan indeed teaches suspension is done before handover.

On page 9 of Appellant's argument, Appellant further argues that the Applicant's admitted prior art, Frodigh, and Kanerova also fail to disclose or suggest these features.

In response, the Applicant's admitted prior art, Frodigh, and Kanerova do teach claims 5-8. In addition, Appellant's attention is directed to the rejection of claims 5-8 above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Nghi H. Ly

September 4, 2003

Appeal conference conducted on August 28, 2003

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